

X-Seal HD80

Flexible polyurethane joint sealant

Product Description

X-Seal HD80 is a 100% solids two component, self leveling, flexible polyurethane joint sealant, for use on floors subject to hard wheels and heavy loads.

Advantages

- Chemical resistant
- Abrasion resistant
- Tough and durable

Uses

- Concrete joints
- Random filling of cracks
- Flexible adhesive

Laboratory Test Data

Property	Typical Results
Movement accommodation factor	10%
Tensile strength	550psi (4MPa)
Elongation (DIN 53504)	100%
Hardness (Shore A) (DIN 53505)	80

Variations can be expected in the field.

Application Properties

Application temperature	50 to 104F (10 to 40C)
Service temperature	40 to 140F (4 to 60C)
Return to service at 25C	24hrs
Pot life at 25C	30 to 40 minutes

Chemical Resistance

Gasoline	Slight surface change, no hardness loss
Diesel Fuel	No visible damage
H₂SO₄ (20%)	Slight surface change, no hardness loss
HCl (10%)	No visible damage
NaOH (50%)	Slight surface discoloring, no hardness loss
Acetic Acid (10%)	No visible damage

Specification Compliance

Estidama LBi-2.1

Meets ASTM C 920, Type S, Grade P, Class 25

Volatile Organic Content

VOC = <50 g/L

Color

Grey. Other colours available subject to minimum order quantities.

Yield

The following calculations can be used to determine the quantity of material required for any joint size:

In feet per US gallon of sealant: $\frac{JW \text{ inches} \times SD \text{ inches} \times JL \text{ feet} \times 12}{231}$

In meters per liter of sealant: $\frac{JW \text{ mm} \times SD \text{ mm} \times JL \text{ meters}}{1000}$

JW = Joint width, SD = Sealant depth, JL = Joint length

Packaging

1 gallon (4L) kits.

Shelf Life

Kits: 18 months when stored unopened at between 60 and 90F (15 to 32C) under shade in a dry environment.

Joint Design Considerations

- Refer to ACI 504R "Guide for Sealing Joints in Concrete Structures."
- X-Seal HD80 should be installed full depth when sealing construction/control joints.
- Apply joint sealants as late as possible after construction, ideally 90 to 120 days to minimize the effects of long term drying shrinkage of the concrete (refer to ACI 302 for more details).

Installation Guidelines

NCC X-Calibur provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

Joint Preparation

Joint should be accurately cut or formed. Joint edges must be sound, dry and free from any contaminants. The joint edges must be prepared by grit blasting, grinding or by wire brushing to produce a rough clean surface.

Priming

Priming is normally not required on properly prepared concrete surfaces.

Mixing

Condition material between 65 and 86F (18 to 30C) before use for ease of application. Pre-mix base component. Mix base and hardener thoroughly for 3 minutes with a drill and paddle. Scrape the sides and bottom of the bucket while mixing.

Joint Sealing

X-Seal HD80 is a self leveling material designed for horizontal applications only. Mixed material can be applied by pouring into the joint or by using a conventional caulking gun. Completely fill joint in one pass, overfilling it slightly. Strike off level and remove any excess material, before it hardens.

Mortar

X-Seal HD80 can be mixed with sand to create a durable mortar. Add up to 2.0 gallons of fine sand to 1 gallon of mixed X-Seal HD80 to yield 2.2 gallons of mortar.

Limitations

Do not use in large movement joints, consider the MAF prior to use.

Do not use under constant immersion unless a primer is used

Do not apply in rain or wet conditions, at temperatures below 40F (4C), above 100F (38C) or within 5F (3C) of the dew point.

X-Seal HD80 is not color stable and may change color over time.

Do not store at below 60F (15C) or above 90F (32C). Minimum age of concrete should be 28 days before sealant application.

Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. The MSDS can be obtained via our website www.NCC.com.eg

Authorized Technical Specialist

Please note that only NCC X-Calibur Authorized Technical Support Specialists ('ATSS') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit www.ncc.com.eg for a full list of NCC X-Calibur ATSS.

Datasheet Validity

NCC X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on www.ncc.com.eg to ensure you have the latest version.

Warranties

NCC X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. NCC X-Calibur does not warrant or guarantee the installation of the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to NCC X-Calibur in writing within five working days of being detected. NCC X-Calibur Construction Systems Inc. **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** NCC X-Calibur Construction Systems Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.



Quality Statement
All Products manufactured by NCC X-CALIBUR or imported from X-CALIBUR companies world-wide are manufactured to procedures certified to conform the quality, environment, systems described in the ISO 14001:2004 , ISO 9001:2000.



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www.x-calibur.us